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ABSTRACT

The purpose of this paper is to discuss the utility of mark-sense readers in locally produced evaluations. The term mark-sense reader refers to a class of electronic devices that convert marks made on a paper sheet to electronic information by means of either electrical or optical sensing of the marks. The most common use of mark-sense readers has been for scoring multiple choice tests. However, the availability of inexpensive mark-sense readers has increased the number of evaluation-oriented tasks that can be accomplished with the aid of such readers. These tasks include: (1) test scoring of diagnostic, placement, or locally made tests; (2) data collection from surveys and polls; (3) evaluation of training sessions and courses; and (4) data entry of demographic and descriptive information on students. Preceding this discussion on how mark-sense readers can be and have been used to perform these tasks is a brief background section explaining some of the requirements for use of mark-sense readers in terms of hardware and software. (BW)

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THE USE OF MARK-SENSE READERS IN EVALUATION

Session 12.06
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The purpose of this paper is to discuss the utility of mark-sense readers in locally produced evaluations. The term "Mark-sense" reader refers to a class of electronic devices that convert "marks" made on a paper sheet to electronic information by means of either electrical or optical sensing of the marks. The most common use of mark-sense readers has been for scoring multiple choice tests. However, the availablity of inexpensive mark-sense readers has increased the number of evaluation-oriented tasks that can be accomplished with the aid of such readers. These tasks include:

- test scoring of diagnostic, placement, or locally made tests
- data collection from surveys and polls
- evaluation of training sessions and courses
- data entry of demographic and descriptive information on students

Before discussing how mark-sense readers can -and have- been used to perform these tasks, let us examine some of the requirements for use of mark-sense readers in terms of hardware and software.

BACKGROUND

Marksense readers have been used successfully on a large scale in education for test scoring over the last 20 years. The capital investment in hardware and requisite large computers to perform the scoring have prohibited the majority of school districts

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from using the marksense technology. The advent of smaller, less expensive marksense readers over the last 10 years has made this technology more affordable and practical. The trade off made for the lower price was less flexibility in input and output. That is, the less expensive readers read a limited set of form types and produced minimal printed output. However, the advent of cheap computing power in the form of 8-bit and 16-bit microcomputers can now enhance both the range of forms read and the range of reports that these smaller marksense readers can generate.

There are several manufacturers of mark-sense readers. These include Scantron, Chatsworth, NCS, and Empak. Several models of marksense readers from these manufacturers are "stand-alone" units that require no additional hardware or software to run. However, these stand-alone units are designed primarily for test scoring. As such, broader applications require communication to a microcomputer. Specific applications will require specific software that runs on specific microcomputers. Thus, while we will discuss the use of mark-sense readers in evaluation, there is an underpinning assumption of the proper hardware connections and software to accomplish the tasks.

The applications that are discussed below are limited to uses that our staff at PAI have assisted in implementing in schools in both Texas and Lousiana. Details on available software and needed hardware configurations can be obtained directly from the marksense reader manufacturers.

TEST SCORING

The stand-alone variety of mark-sense readers is designed specifically for test scoring. Typically, the user passes an answer sheet with correct responses through as the "key". Following the key, the answer sheets of test takers are passed through the reader. "Scoring" occurs either after each sheet is read or after a signal has been sent to the reader indicating that the last sheet has been read. A raw score correct for each sheet is printed either directly onto each answer sheet or onto an attached printer. In addition, a group summary is often provided indicating how many respondents answered each item correctly. At least one stand-alone unit (the Empac 250) provides a tally of responses by response alternative for each response. Some stand alone models will also provide Objective

scores for a limited number of objectives (defined as a subset of items).

Attaching a mark-sense reader to a microcomputer increases the number of test analyses and the complexity of test structure that can be scored. For example, Criterion Referenced Tests that contain several domains and objectives can be quickly scored with the use of a mark-sense reader. With the proper software, information on objective mastery can be stored for each test taker and used for grouping for instruction. In Texas, the growing use of comprehensive criterion referenced tests such as the Learner Based Accountability System (LBAS, Educational Service Center, Region X, Richardson, Tx), require continuous progress testing of participants. The availability of mark-sense readers on each campus of a school district greatly increases the practicality of LBAS information to be incorporated into the student's curriculum.

The use of mark-sense readers to score standardized tests is hampered by the issue of copyright protection of normative information. However, a number of standardized tests are used for student selection into programs based on raw score rather than normative data. In these instances, the use of mark-sense readers speeds up the selection process and adds to its reliability. For example, in Texas and Louisiana, many schools use American Testronix' DCAT test for one piece of information in selecting students for gifted and talented programs. The information needed from the DCAT is raw score sums for two subsets of items. For purposes of selection, the DCAT can be scored with the mark-sense reader locally, the raw scores obtained and fit into a weighted selection procedure onsite and in a very short time. Similarly, Bilingual projects throughout the Southwest use Linguametric's LAS scales to categorize the English and Spanish language capabilities of bilingual students. While norms are available, many districts simply record the raw scores and the categories (ie ranges of raw scores) for bilingual students. Using a marksense reader, a student's responses can be recorded by an examiner (some parts of the test involve language production and could not be directly recorded onto a sheet by the student) and scored immediately. More important, summary information for a group of students could be obtained at the same time that individual tests are being scored.

Even norm-referenced tests can be scored with the use of mark-sense readers. However, there are some practical considerations that must be understood. First, as mentioned above, the issue of

copyright of norms tables must be addressed before the norm tables can be electronically reproduced. Secondly, given that norms tables are available on a microcomputer, there is the issue of entering (or purchasing) the several tables needed for each form, level, testing time, and score type. Thirdly, there is the issue of report formats. Schools familiar with the wide variety of score reports available from commerical scoring services may well be disappointed at the locally generated test reports. But for a small district that is interested in scoring a normed test only to meet an evaluation requirement (eg, getting NCE scores for pretest and posttest time), the use of a mark-sense reader with appropriate software could be both a money and time saver.

The two big advantages of using marksense readers for test scoring are quick turn-around time and low cost per student tested. The biggest disadvantage is the limit on answer sheet and report formats. Most inexpensive marksense readers use half page sheets or cards for data input. Even when full page forms can be read, very few models (eg the Scantron 2700) can read an entire page of data with just one "pass". Typical two or more passes must be made to read all data. Reports are either limited to those that are standard with the stand alone reader or are dependent on the programs available or locally developed to process the score information. Another disadvantage is the availabilty of electronically reproduced norms tables (for Norm-referenced tests). The other uses of mark sense readers bear out these advantages and are not plagued with these disadvantages.

DATA COLLECTION FROM SURVEY AND POLLS

To the extent that a survey or poll is couched in multiple choice questions, the main difference between analyzing survey/poll data and test data is that there are no predetermined correct answers for the survey/poll. Thus, much of the software (or built in capability of stand-alone mark-sense readers) used for test-scoring can also be used for analyzing surveys and polls.

In a typical case, one central Texas school district conducted its five year needs assessment of community opinion using mark-sense sheets and an accompanying 200 item survey. Approximately 2000 surveys were returned properly completed. It took approximately 10 hours to read the data through the mark-sense reader onto a microcomputer database. Another 10 hours of analysis (using available

statistical software) was needed to complete the crosstabulations and frequency distributions. A previously administered survey had taken more than 3 months to summarize.

The advantage of using mark-sense readers for survey data collection is the speed with which the data is made available for analysis. However, there is one potential drawback. Adding a mark-sense sheet to a large survey may complicate the response process to the point that the response rate drops. This is especially true when the target of the survey or poll is particularly unmotivated to complete the information in the first place. The use of mark-sense sheets in a mail-survey may skew the responses in favor of respondents who are not put off by this new technology.

EVALUATING COURSES AND TRAINING SESSIONS

In most school districts there is an inservice training component that offers several dozens courses for continuing professional development. Evaluation of each training session is usually pro forma: participants are given 5 to 10 likert scaled statements to respond to indicating the relevance of the session to their needs, the quality of the presentation, the speaker, the facilities etc. Likewise, in many institutes of higher learning, students are asked to evaluate courses at the end of each semester for quality, relevance, and so forth.

Applying mark-sense readers to this task, several advantages are realized. First, the evaluation information is made available immediately both for the administration and the presenter of the training session (or course instructor). Second, by storing this information onto a microcomputer database, patterns in responses due to presenter, time of day, subject matter, etc can be detected and used for future planning. One course evaluation form used by an institute of higher education is included at the end of this paper as Exhibit A.

In one application of this technology, our company has provided evaluation services to large educational conferences (eg, National Migrant Education Conference, Texas Association of Gifted and Talented Education). Many of the sessions offered at these conferences are repeated throughout the conference. Within a couple of hours of the end of each session, a summary of participants responses is posted in a public area. Not only does this give the presenters an idea of

their perceived success, but it gives potential participants to repeat sessions an insight into whether to attend that session. By further analyzing the data by type of respondent (eg, administrator, teacher, parent), the conferences can better answer questions of responsiveness to particular constituents of their membership. A copy of the report generated for each session is attached to this paper.

GENERAL DATA ENTRY

The above applications have shown how mark-sense readers can be used to collect numerical or categorical data from a large group of respondents. Mark-sense readers can also be used to "transcribe" descriptive or demographic information.

In every school there is likely to be a core of descriptive information on students that is required for a variety of administrative and evaluative functions. This information might include:

- student name
- address (including street, city, zip)
- program membership
- test score information (pre/post normed test, placement)
- teacher rating of performance
- sex, ethnicity,age

Once this information is made available on a microcomputer in the form of a database, there are several uses to which it may be put. However, except for the smallest of schools, the data entry time required to enter even this small core of information may be prohibitive, resulting in a decision not to use microcomputer technology to streamline administrative functions. Our company has been involved with six local school districts in the last year using mark-sense readers for such data entry. Each school designed its own data entry form with the help of the manufacturer. Once the form was designed, our task was to develop the software that read the form and created a database file.

In practice, the use of these forms spread the task of data entry across several dozen teachers instead of focussing the same task on one data entry clerk. At the beginning of the

school year, this can mean the difference between having information on students available within days instead of within weeks. Attached to this paper are two data entry sheets (Exhibits B and C) that are in use in school districts in Texas. The information varies depending on their specific needs, but the principal is the same.

In one school district, mark-sense forms are used to register teachers for inservice training sessions. At the beginning of school each teacher fills in one form for each desired session. These forms are returned to the central office where they are read through mark-sense reader onto a database. The information is then sorted by session to indicate which sessions have sufficient enrollment to be conducted. Sessions with insufficient enrollment are either combined with other sessions or dropped. The information is also sorted by teacher to assure that each teacher has signed up for the minimum number of courses. Teachers are notified of any changes in their courses. The sessions occurs throughout the school year.When the teachers attend the sessions during the year they are given back their registration forms. On the reverse side are listed a set of evaluation questions that are to be completed. Once the questions are completed and turned back into the central office, they are again read onto a database. Now, each session can be evaluated quickly and attendance for each session can be tallied by counting the number of respondents. In addition, a record is made of which teachers did not evaluate the session and hence did not attend. These teachers are then notified and rescheduled for comparable sessions. A copy of the registration mark-sense form is attached to this paper as Exhibit D.

SUMMARY

Application of mark-sense readers to several evaluative tasks can result in both cost and time savings compared to other procedures. The most common use of mark sense readers is for test scoring. Use of appropriate microcomputer hardware and software extends the test scoring capability of mark-sense readers to the most complex criterion referenced tests. Many widely used diagnostic, placements and even normative tests can be easily scored by mark-sense readers.

Analysis of survey and poll information is as easily accomplished with mark sense readers as is test scoring. Availability of statistical

routines to analyze the data once collected is necessary. Likewise evaluation of courses or training sessions can be easily accomplished with marksense readers. In all of these applications, mark sense readers' main advantage is reducing the time between data collection and data analysis. An added benefit is the reduction in data entry errors that obtains from preformatting the data fields.

Finally, mark-sense readers can be used for recording and reading basic demographic and test information for students. In this application, there is a dramatic reduction in the time required to enter student information onto a microcomputer for further reporting and analysis. An additional advantage of this method of data entry is the maintenance of a "hard-copy" of data on the mark sense sheets that insures agains a magnetic catastrophe of the microcomputer based data.

A
FORM A
FRONT

Theological Seminary

STUDENT EVALUATION OF TEACHING

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PART I: EVALUATION INSTRUMENT

The Student Evaluation of Teaching was designed to give you opportunity to express your opinions of this course and the way it has been taught. Please read each of the following statements carefully. Indicate your evaluation by blackening the appropriate bracket. Use a #2 lead pencil for your responses.

COURSE SEQUENCE NUMBER

⊏0⊐	⊏1⊐	⊏2⊐	■	⊏4⊐	⊏5⊐	⊏6⊐	⊏7⊐	⊏8⊐	⊏9⊐
⊏0⊐	⊏1⊐	⊏2⊐	⊏3⊐	■	⊏5⊐	⊏6⊐	⊏7⊐	⊏8⊐	⊏9⊐
⊏0⊐	⊏1⊐	⊏2⊐	⊏3⊐	⊏4⊐	■	⊏6⊐	⊏7⊐	⊏8⊐	⊏9⊐

THE TEACHER

1. This teacher is knowledgeable in his/her field	1.	■	⊏A⊐	⊏D⊐	⊏SD⊐
2. This teacher communicates clearly	2.	⊏SA⊐	⊏A⊐	⊏D⊐	⊏SD⊐
3. This teacher has a pleasant attitude about teaching this course	3.	■	⊏A⊐	⊏D⊐	⊏SD⊐
4. This teacher demonstrates characteristics of Christian ministry in this course	4.	⊏SA⊐	⊏A⊐	⊏D⊐	⊏SD⊐

PERFORMANCE

5. This teacher is well prepared for class sessions	5.	⊏SA⊐	■	⊏D⊐	⊏SD⊐
6. The course material is presented in a well-organized, logical manner	6.	⊏SA⊐	⊏A⊐	⊏D⊐	⊏SD⊐
7. This teacher uses instructional methods which stimulate the student's desire to learn	7.	⊏SA⊐	■	⊏D⊐	⊏SD⊐
8. This teacher usually begins and ends class on time	8.	⊏SA⊐	⊏A⊐	⊏D⊐	⊏SD⊐
9. This teacher makes effective use of class time	9.	⊏SA⊐	⊏A⊐	■	⊏SD⊐
10. This teacher helped increase my understanding of the subject	10.	⊏SA⊐	⊏A⊐	⊏D⊐	⊏SD⊐
11. This teacher encourages students to think independently and do further study	11.	⊏SA⊐	⊏A⊐	■	⊏SD⊐
12. This teacher is accomplishing the objectives of the course	12.	⊏SA⊐	⊏A⊐	⊏D⊐	⊏SD⊐

COURSE OBJECTIVES

13. The objectives for the course were clearly set forth early in the semester	13.	⊏SA⊐	⊏A⊐	⊏D⊐	■
14. Learning activities assigned by this teacher help the student achieve the course objectives	14.	⊏SA⊐	⊏A⊐	⊏D⊐	⊏SD⊐
15. The amount of work required by this teacher is realistic for the hours of course credit	15.	⊏SA⊐	⊏A⊐	⊏D⊐	■

GRADING

16. This teacher's tests or other measurements of learning reflect the objectives and content of the course	16.	■	⊏A⊐	⊏D⊐	⊏SD⊐
17. This teacher's tests or other measurements of learning are returned in a reasonable length of time	17.	⊏SA⊐	■	⊏D⊐	⊏SD⊐
18. Sufficient feedback is provided on graded tests or other measurements of learning	18.	⊏SA⊐	⊏A⊐	■	⊏SD⊐
19. This teacher's basis for grading was clearly established early in the semester	19.	⊏SA⊐	⊏A⊐	⊏D⊐	■

TEACHER-STUDENT RELATIONS

20. This teacher is available during the posted office hours or by appointment	20.	■	⊏A⊐	⊏D⊐	⊏SD⊐
21. This teacher is considerate of students as persons	21.	⊏SA⊐	■	⊏D⊐	⊏SD⊐

GENERAL

22. The overall quality of instruction in this course is high	22.	⊏SA⊐	⊏A⊐	■	⊏SD⊐

SUPPLEMENTARY QUESTIONS

23.	23.	⊏SA⊐	⊏A⊐	⊏D⊐	■
24.	24.	■	⊏A⊐	⊏D⊐	⊏SD⊐

FEED THIS DIRECTION

FORM NO. 20226-SBTS • MULTI-MARK

FORM A
BACK

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COURSE TITLE _____ INSTRUCTOR _____

PART II: GENERAL INFORMATION

1. Degree Program _____

2. Year in Seminary
☐ first ☐ third
☐ second ☐ fourth (or beyond)

3. Grade Average
☐ above 3.5 ☐ 2.0 - 2.5
☐ 3.0 - 3.5 ☐ below 2.0
☐ 2.5 - 3.0

4. Course was
☐ required ☐ elective

5. Reason for selecting course
☐ required course ☐ recommendation of adviser
☐ interest in subject ☐ recommendation of friend
☐ reputation of teacher ☐ other _____

6. Based on previous experience and study, the work in this course was
☐ very difficult ☐ easy
☐ difficult ☐ very easy
☐ about right

PART III: STUDENT COMMENTS

Your teacher will value comments on those aspects of the course you liked most as well as those you liked least. What suggestions would you make for improving this course? Your comments will be returned to your teacher after final grades have been submitted. The student signature will be at the discretion of the teacher.

_____

_____

_____

_____

_____

_____

_____

Signed: _____
(IF REQUESTED)

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FORM B FRONT

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INDEPENDENT SCHOOL DISTRICT

STUDENT INFORMATION

USE NO. 2 PENCIL ONLY

ERASE COMPLETELY TO CHANGE

FEED THIS DIRECTION — PASS 1 — FORM NO. 20515-0ESD — FEED THIS DIRECTION

LAST NAME

FIRST NAME — **MIDDLE INITIAL**

STUDENT I.D.

CURRENT GRADE

BIRTHDATE — YEAR / MONTH / DAY

SCHOOL YEAR 19__

ENTRY DATE — YEAR / MONTH / DAY

HOME LANG. SURVEY

English	⊏ ⊐
Spanish	⊏ ⊐
Other	⊏ ⊐

FED. LUNCH PRGM.

No	⊏ ⊐
Free	⊏ ⊐
Reduced	⊏ ⊐
Verified	⊏ ⊐

TELEPHONE NUMBER

SEX: MALE ⊏ ⊐ FEMALE ⊏ ⊐

PASS 2 — FEED THIS DIRECTION

FORM B
BACK

TELEPHONE NUMBER

			–				
0	0	0		0	0	0	0
1	1	1		1	1	1	1
2	2	2		2	2	2	2
3	3	3		3	3	3	3
4	4	4		4	4	4	4
5	5	5		5	5	5	5
6	6	6		6	6	6	6
7	7	7		7	7	7	7
8	8	8		8	8	8	8
9	9	9		9	9	9	9

DATE OF BIRTH

MONTH	DAY		YEAR	
JAN	0	0	0	0
FEB	1	1	1	1
MAR	2	2	2	2
APR	3	3	3	3
MAY		4	4	4
JUN		5	5	5
JUL		6	6	6
AUG		7	7	7
SEP		8	8	8
OCT		9	9	9
NOV				
DEC				

SEX

M	F

ETHNICITY

- HISPANIC
- ANGLO
- BLACK
- OTHER

SPECIAL POPULATION

- MIGRANT
- SPECIAL ED
- ESL
- BILINGUAL
- CH. I

GRADUATION

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

STUDENT'S LAST NAME

A	A	A	A	A	A	A	A	A	A	A
B	B	B	B	B	B	B	B	B	B	B
C	C	C	C	C	C	C	C	C	C	C
D	D	D	D	D	D	D	D	D	D	D
E	E	E	E	E	E	E	E	E	E	E
F	F	F	F	F	F	F	F	F	F	F
G	G	G	G	G	G	G	G	G	G	G
H	H	H	H	H	H	H	H	H	H	H
I	I	I	I	I	I	I	I	I	I	I
J	J	J	J	J	J	J	J	J	J	J
K	K	K	K	K	K	K	K	K	K	K
L	L	L	L	L	L	L	L	L	L	L
M	M	M	M	M	M	M	M	M	M	M
N	N	N	N	N	N	N	N	N	N	N
O	O	O	O	O	O	O	O	O	O	O
P	P	P	P	P	P	P	P	P	P	P
Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
R	R	R	R	R	R	R	R	R	R	R
S	S	S	S	S	S	S	S	S	S	S
T	T	T	T	T	T	T	T	T	T	T
U	U	U	U	U	U	U	U	U	U	U
V	V	V	V	V	V	V	V	V	V	V
W	W	W	W	W	W	W	W	W	W	W
X	X	X	X	X	X	X	X	X	X	X
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z

STUDENT'S FIRST NAME

A	A	A	A	A	A	A	A	A	A	A
B	B	B	B	B	B	B	B	B	B	B
C	C	C	C	C	C	C	C	C	C	C
D	D	D	D	D	D	D	D	D	D	D
E	E	E	E	E	E	E	E	E	E	E
F	F	F	F	F	F	F	F	F	F	F
G	G	G	G	G	G	G	G	G	G	G
H	H	H	H	H	H	H	H	H	H	H
I	I	I	I	I	I	I	I	I	I	I
J	J	J	J	J	J	J	J	J	J	J
K	K	K	K	K	K	K	K	K	K	K
L	L	L	L	L	L	L	L	L	L	L
M	M	M	M	M	M	M	M	M	M	M
N	N	N	N	N	N	N	N	N	N	N
O	O	O	O	O	O	O	O	O	O	O
P	P	P	P	P	P	P	P	P	P	P
Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
R	R	R	R	R	R	R	R	R	R	R
S	S	S	S	S	S	S	S	S	S	S
T	T	T	T	T	T	T	T	T	T	T
U	U	U	U	U	U	U	U	U	U	U
V	V	V	V	V	V	V	V	V	V	V
W	W	W	W	W	W	W	W	W	W	W
X	X	X	X	X	X	X	X	X	X	X
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z

FEED THIS DIRECTION

FEED THIS DIRECTION

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FORM C
FRONT

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INDEPENDENT SCHOOL DISTRICT

STUDENT DEMOGRAPHIC DATA

SCAN-TRON • FORM NO. 20686-TISD

FEED THIS DIRECTION

STUDENT'S I.D. NUMBER

0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

CAMPUS I.D.

1
2
3
4

ADDRESS

A	A	A	A	A	A	A	A	A	A	A
B	B	B	B	B	B	B	B	B	B	B
C	C	C	C	C	C	C	C	C	C	C
D	D	D	D	D	D	D	D	D	D	D
E	E	E	E	E	E	E	E	E	E	E
F	F	F	F	F	F	F	F	F	F	F
G	G	G	G	G	G	G	G	G	G	G
H	H	H	H	H	H	H	H	H	H	H
I	I	I	I	I	I	I	I	I	I	I
J	J	J	J	J	J	J	J	J	J	J
K	K	K	K	K	K	K	K	K	K	K
L	L	L	L	L	L	L	L	L	L	L
M	M	M	M	M	M	M	M	M	M	M
N	N	N	N	N	N	N	N	N	N	N
O	O	O	O	O	O	O	O	O	O	O
P	P	P	P	P	P	P	P	P	P	P
Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
R	R	R	R	R	R	R	R	R	R	R
S	S	S	S	S	S	S	S	S	S	S
T	T	T	T	T	T	T	T	T	T	T
U	U	U	U	U	U	U	U	U	U	U
V	V	V	V	V	V	V	V	V	V	V
W	W	W	W	W	W	W	W	W	W	W
X	X	X	X	X	X	X	X	X	X	X
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z
0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9

ADDRESS

A	A	A	A	A	A	A	A	A	A	A
B	B	B	B	B	B	B	B	B	B	B
C	C	C	C	C	C	C	C	C	C	C
D	D	D	D	D	D	D	D	D	D	D
E	E	E	E	E	E	E	E	E	E	E
F	F	F	F	F	F	F	F	F	F	F
G	G	G	G	G	G	G	G	G	G	G
H	H	H	H	H	H	H	H	H	H	H
I	I	I	I	I	I	I	I	I	I	I
J	J	J	J	J	J	J	J	J	J	J
K	K	K	K	K	K	K	K	K	K	K
L	L	L	L	L	L	L	L	L	L	L
M	M	M	M	M	M	M	M	M	M	M
N	N	N	N	N	N	N	N	N	N	N
O	O	O	O	O	O	O	O	O	O	O
P	P	P	P	P	P	P	P	P	P	P
Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
R	R	R	R	R	R	R	R	R	R	R
S	S	S	S	S	S	S	S	S	S	S
T	T	T	T	T	T	T	T	T	T	T
U	U	U	U	U	U	U	U	U	U	U
V	V	V	V	V	V	V	V	V	V	V
W	W	W	W	W	W	W	W	W	W	W
X	X	X	X	X	X	X	X	X	X	X
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z
0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9

CITY AND STATE

	Tx.
	Tx.
	, Tx.
	Tx.
	Tx.

ZIP

76574
78615
78634
76578
76530

ADD. TO ZIP

	0	0	0	0
	1	1	1	1
	2	2	2	2
	3	3	3	3
	4	4	4	4
	5	5	5	5
	6	6	6	6
	7	7	7	7
	8	8	8	8
	9	9	9	9

FEED THIS DIRECTION

FORM C
BACK

BEST COPY AVAILABLE

PASS 3 ← FEED THIS DIRECTION

FEED THIS DIRECTION → PASS 4

TEACHER SOCIAL SECURITY #

⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃
⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃
⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃
⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃
⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃
⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃
⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃
⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃
⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃
⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃

LAS SPAN PRE

⊂0⊃	⊂0⊃
⊂1⊃	⊂1⊃
⊂2⊃	⊂2⊃
⊂3⊃	⊂3⊃
⊂4⊃	⊂4⊃
⊂5⊃	⊂5⊃
⊂6⊃	⊂6⊃
⊂7⊃	⊂7⊃
⊂8⊃	⊂8⊃
⊂9⊃	⊂9⊃

LAS SPAN PRE DATE

⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃
⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃
⊂2⊃	⊂2⊃		⊂2⊃	⊂2⊃	⊂2⊃
⊂3⊃	⊂3⊃		⊂3⊃	⊂3⊃	⊂3⊃
⊂4⊃	⊂4⊃		⊂4⊃		⊂4⊃
⊂5⊃	⊂5⊃		⊂5⊃		⊂5⊃
⊂6⊃	⊂6⊃		⊂6⊃		⊂6⊃
⊂7⊃	⊂7⊃		⊂7⊃		⊂7⊃
⊂8⊃	⊂8⊃		⊂8⊃		⊂8⊃
⊂9⊃	⊂9⊃		⊂9⊃		⊂9⊃

YEAR / MONTH / DAY

LAS ENG PRE

⊂0⊃	⊂0⊃
⊂1⊃	⊂1⊃
⊂2⊃	⊂2⊃
⊂3⊃	⊂3⊃
⊂4⊃	⊂4⊃
⊂5⊃	⊂5⊃
⊂6⊃	⊂6⊃
⊂7⊃	⊂7⊃
⊂8⊃	⊂8⊃
⊂9⊃	⊂9⊃

LAS ENG PRE DATE

⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃
⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃
⊂2⊃	⊂2⊃		⊂2⊃	⊂2⊃	⊂2⊃
⊂3⊃	⊂3⊃		⊂3⊃	⊂3⊃	⊂3⊃
⊂4⊃	⊂4⊃		⊂4⊃		⊂4⊃
⊂5⊃	⊂5⊃		⊂5⊃		⊂5⊃
⊂6⊃	⊂6⊃		⊂6⊃		⊂6⊃
⊂7⊃	⊂7⊃		⊂7⊃		⊂7⊃
⊂8⊃	⊂8⊃		⊂8⊃		⊂8⊃
⊂9⊃	⊂9⊃		⊂9⊃		⊂9⊃

YEAR / MONTH / DAY

LAS ENG POST

⊂0⊃	⊂0⊃
⊂1⊃	⊂1⊃
⊂2⊃	⊂2⊃
⊂3⊃	⊂3⊃
⊂4⊃	⊂4⊃
⊂5⊃	⊂5⊃
⊂6⊃	⊂6⊃
⊂7⊃	⊂7⊃
⊂8⊃	⊂8⊃
⊂9⊃	⊂9⊃

LAS ENG POST DATE

⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃
⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃
⊂2⊃	⊂2⊃		⊂2⊃	⊂2⊃	⊂2⊃
⊂3⊃	⊂3⊃		⊂3⊃	⊂3⊃	⊂3⊃
⊂4⊃	⊂4⊃		⊂4⊃		⊂4⊃
⊂5⊃	⊂5⊃		⊂5⊃		⊂5⊃
⊂6⊃	⊂6⊃		⊂6⊃		⊂6⊃
⊂7⊃	⊂7⊃		⊂7⊃		⊂7⊃
⊂8⊃	⊂8⊃		⊂8⊃		⊂8⊃
⊂9⊃	⊂9⊃		⊂9⊃		⊂9⊃

YEAR / MONTH / DAY

SPECIAL PROGRAMS

A. BILINGUAL EDUCATION	⊂ ⊃
B. E.S.L.	⊂ ⊃
C. CHAPTER 1 MIGRANT	⊂ ⊃
D. CHAPTER 1 REG. READING	⊂ ⊃
E. CHAPTER 1 REG. MATH	⊂ ⊃
F. SCE READING	⊂ ⊃
G. SCE MATH	⊂ ⊃
H. CVAE	⊂ ⊃
I. SPECIAL EDUCATION	⊂ ⊃
J. GIFTED AND TALENTED	⊂ ⊃

ACHIEVEMENT NCE's

READING		MATH		L.A.		TOTAL	
⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃
⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃
⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃
⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃
⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃
⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃
⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃
⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃
⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃
⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃

ACHIEVEMENT PERCENTILES

READING		MATH		L.A.		TOTAL	
⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃
⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃
⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃	⊂2⊃
⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃	⊂3⊃
⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃	⊂4⊃
⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃	⊂5⊃
⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃	⊂6⊃
⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃	⊂7⊃
⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃	⊂8⊃
⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃	⊂9⊃

ACHIEVEMENT TEST DATE

⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃	⊂0⊃
⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃	⊂1⊃
⊂2⊃	⊂2⊃		⊂2⊃	⊂2⊃	⊂2⊃
⊂3⊃	⊂3⊃		⊂3⊃	⊂3⊃	⊂3⊃
⊂4⊃	⊂4⊃		⊂4⊃		⊂4⊃
⊂5⊃	⊂5⊃		⊂5⊃		⊂5⊃
⊂6⊃	⊂6⊃		⊂6⊃		⊂6⊃
⊂7⊃	⊂7⊃		⊂7⊃		⊂7⊃
⊂8⊃	⊂8⊃		⊂8⊃		⊂8⊃
⊂9⊃	⊂9⊃		⊂9⊃		⊂9⊃

YEAR / MONTH / DAY

TABS

READING	
MASTERY	⊂ ⊃
NON-MASTERY	⊂ ⊃

WRITING	
MASTERY	⊂ ⊃
NON-MASTERY	⊂ ⊃

MATH	
MASTERY	⊂ ⊃

FORM D FRONT

INDEPENDENT SCHOOL DISTRICT

INDIVIDUALIZED STAFF DEVELOPMENT EQUIVALENCY - TIME PROGRAM

BEST COPY AVAILABLE

USE NO. 2 PENCIL

EXAMPLE

C	A	B
A	A	A
B	B	B
C	C	C

LAST NAME

FIRST NAME

MIDDLE INITIAL

SOCIAL SECURITY NUMBER

CAMPUS

CODE:

101	Alvarez
102	Austin
103	Bonham
105	Crockett
119	Escandon
114	Fields
106	Houston
107	Jackson
111	Milam
108	Navarro
120	Rayburn
121	Roosevelt
116	Seguin
110	Thigpen
117	Early Childhood
112	Wilson
113	Zavala
115	Bowie
001	
002	Memorial
044	Brown
041	Lamar
043	Lincoln
042	Travis
000	Central Office

STAFF DEVELOPMENT SESSIONS

DATE OF SESSION MONTH/DAY

JAN	1	0
FEB	2	1
MAR	3	2
APR	4	3
MAY	5	
JUN	6	
JUL	7	
AUG	8	
SEP	9	
OCT	10	
NOV	11	

NUMBER OF HOURS HOURS/MINUTES

SCAN-TRON® FORM NO. 2985-MISD

FEED THIS DIRECTION

FEED THIS DIRECTION

FORM D
BACK

SESSION EVALUATION

FILL IN THE APPROPRIATE BOX

1 - is the most negative.
5 - is the most positive.

FEED THIS DIRECTION

1. The objectives were clearly defined.
   ⊏1⊐ ⊏2⊐ ⊏3⊐ ⊏4⊐ ⊏5⊐

2. The objectives were met.
   ⊏1⊐ ⊏2⊐ ⊏3⊐ ⊏4⊐ ⊏5⊐

3. Appropriate activities were utilized.
   ⊏1⊐ ⊏2⊐ ⊏3⊐ ⊏4⊐ ⊏5⊐

4. The consultant was adequately prepared.
   ⊏1⊐ ⊏2⊐ ⊏3⊐ ⊏4⊐ ⊏5⊐

5. The session increased the participant's knowledge of subjects covered.
   ⊏1⊐ ⊏2⊐ ⊏3⊐ ⊏4⊐ ⊏5⊐

6. The concepts or skills presented increased the participant's level of competence as an educator.
   ⊏1⊐ ⊏2⊐ ⊏3⊐ ⊏4⊐ ⊏5⊐

7. The session stimulated enthusiasm to try different ideas or approaches.
   ⊏1⊐ ⊏2⊐ ⊏3⊐ ⊏4⊐ ⊏5⊐

8. Comments: